

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated July 7, 2009 (hereinafter Office Action) have been considered. Claims 1, 2, 4-14, 17-22 and 25-39 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

1. Claims 1, 2, 14, 17-20, 22, 25-29 and 31-34 are rejected based on 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,212,543 to Arwald et al. (hereinafter “Arwald”) in view of U.S. Publication No. 2002/0052966 by Isomura et al. (hereinafter “Isomura”).

The Applicants respectfully submit that the claims as previously presented are not rendered obvious in view of the combination of Arwald and Isomura. For example, the combination of Arwald and Isomura fails at least to teach or suggest translating a protocol of an ad hoc service discovery request into a service discovery protocol used by an Internet-located service registry by way of a generic service discovery format, e.g., as set forth in independent Claim 1. In the rejection of Claim 1, Arwald at col. 10, lines 1-65, col. 12, lines 11-67, and column 13, lines 1-15 were cited in the Office Action as showing translation of a protocol of a service discovery request into a service discovery protocol used by an Internet-located service registry, the translated service discovery request being used to discover an Internet service provider of the service requested.

Arwald states that “different networks all have different protocols and thus to each of these networks is included an adapter” and a “centrally arranged control equipment sets up communications between the objects (A-G) and/or use of services or between objects.” (Arwald, col. 3, lines 52-61). As Applicants have previously pointed out, the discussion at column 10 of Arwald only describes a protocol coordination mechanism that “keeps track of the different protocols employed by the different object...[and compares] the communication attributes between the different protocols...[to]determine the most effective protocol to which to direct the different adapters used by the objects for making the communication link... [and considers] whether special requirements are needed when translating between the different protocols.” (Arwald, col. 10, lines 1-17). However, neither here nor elsewhere in the Arwald

reference are these “protocols” described as service discovery protocols. In particular, Arwald does not teach or suggest a service discovery protocol used by an Internet-located service registry for discovering an Internet service provider of a requested service.

First, Arwald’s disclosure of translation between general communications protocols fails to teach or suggest any use of “service discovery,” as such term is known and used in the art. On page 4, lines 7-11 of the Office Action, the Examiner asserts that Arwald’s “database 37 and protocol coordination mechanism can be broadly interpreted as the internet-located service registry” because of Arwald’s disclosure at column 1, lines 25-35, which the Examiner cites as “enabling communication between different communication networks including for example, internet network.” However, as Applicants have asserted and continue to assert, this is an overly broad interpretation of the teachings of Arwald.

Arwald states that the “database 37 is populated with an aggregate list of subscribers who subscribe to services offered by the objects 21-33.” (Arwald, col. 7, lines 58-60). Arwald further states “protocol coordination mechanism 45, monitors the respective subscriber profile stored in the database 37, for the purpose of establishing which services are available and usable for that particular called subscriber during the communication and also for determining whether or not any of the services to which the parties have access may create conflicts.” (Arwald, col. 12, lines 37-57).

Thus, Arwald is clearly describing services to which the calling parties have already subscribed/have access to, and is not describing any discovery of new services. Accordingly, when Arwald describes, e.g.,

The net planning mechanism 41, facilitates the coordination between the adapter of the calling service and the adapter of the called service, when determining whether or not services are available between the adapters for establishing a communication link, and consulting with the protocol coordination mechanism 45 when identifying the optimum protocol for the available services for both the calling object and the called object. The net planning mechanism 41, may also direct a change in the agreed-upon protocol during a communication session, when loading changes occur in the different objects. (Arwald, col. 10, lines 48-58)(emphasis added)

Arwald is only referring to the adaptation of endpoints to use services that have already been discovered and subscribed to. Arwald does not describe any mechanisms, for example, to “in which a device can automatically discover services, including their properties, in a dynamic

fashion” as described in the present Application (Specification, p. 2 lines 5-6). Thus, Arwald only describes adapting protocols for existing services, and cannot be relied upon to teach a service registry for discovering a service provider of a requested service.

Secondly, Arwald cannot reasonably be relied upon to teach or suggest an Internet-based service registry used for service discovery. Arwald describes the networks to in which the protocol coordination mechanism operates as “designated for specific use such as telephony, data communication, power transmission and distribution, video and audio programming distribution such as wired cable TV, wireless-cable, wireless local nets, cellular communication networks and the like.” (Arwald, col. 3, lines 48-52). Thus, while Arwald broadly describes networks and the Internet in the Background of the Invention at columns 1-2, Arwald fails to expressly teach that the database 37 and other components of controller 35 are accessed via the Internet for discovering an Internet service provider of a requested service.

As recognized in the Office Action, Arwald does not disclose service discovery and translation, e.g., that may occur in a home proximity network. Thus Isomura is combined with Arwald to reject the claims as obvious. While Isomura does disclose, e.g., “a conversion unit for mutually converting service information between a format used in the one service discovery protocol handled in this handler unit and the common format,” (Isomura, Abstract) the combination of references still fails to correspond to the rejected claims.

The Office Action did not allege that Isomura teaches an Internet-located service registry for discovering an Internet service provider of a requested service, nor does Isomura provide such teachings. The service discovery described in Isomura is applicable to service discovery protocol conversion for protocols such as “JINI proposed by SUN Microsystems, UPnP proposed by UPnP forum, Salutation proposed by Salutation consortium, Bluetooth SDP profile proposed by Bluetooth SIG, or SLP proposed by IETF.” (Isomura, 0003). Thus, while Isomura describes service discovery in the domain of communicating between home appliance/apparatuses, Isomura fails to teach or suggest the described conversions may be extended to an Internet-located service registry for discovering an Internet service provider of a requested service.

For at least the reasons given above, The Arwald/Isomura combination does not render independent Claim 1 obvious. Independent Claims 14, 17, 19, and 28 recite similar features

relative to an Internet-located service registry, and so these claims are also allowable over the Arwald/Isomura combination for at least the same reason given for Claim 1. Claims 22 and 25-27 have been cancelled without prejudice or disclaimer, and so the rejections of these claims are now moot.

Dependent Claims 2, 18, 20, 29, and 31-34 depend respectively from independent Claims 1, 14, 19, and 28 and were also rejected as obvious in view of the Arwald/ Isomura combination. Without acquiescing to any particular rejections to these dependent claims, including any assertions concerning inherency or the taking of Official Notice, it is believed that these rejections are now moot in view of the remarks made in connection with independent Claims 1, 14, 19, and 28. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." M.P.E.P. §2143.03; citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Withdrawal of the rejection of Claims 2, 18, 20, 29, and 31-34 is therefore respectfully solicited.

2. Claim 24 is rejected based on 35 U.S.C. §103(a) as being unpatentable over Arwald in view of Isomura as applied to claim 22, and further in view of U.S. Publication No. 2006/0178137 by Loveland (hereinafter "Loveland").

The rejection of Claim 24 is now moot in view of the cancellation of this claim without prejudice or disclaimer.

3. Claims 4-8 and 30 are rejected based on 35 U.S.C. §103(a) as being unpatentable over Arwald in view of Isomura as applied to claim 1, and further in view of U.S. Patent No. 6,741,695 to McConnell et al. (hereinafter "McConnell"). Claims 9-13 are rejected based on 35 U.S.C. §103(a) as being unpatentable over Arwald in view of Isomura and McConnell as applied to claim 8, and further in view of U.S. Patent No. 6,130,917 to Monroe (hereinafter "Monroe"). Claim 21 is rejected based on 35 U.S.C. §103(a) as being unpatentable over Arwald in view of Isomura as applied to claim 19, and further in view of U.S. Publication No. 2004/0208164 by Keenan et al. (hereinafter "Keenan").

The rejections of dependent Claims 4-13, 21, and 30 all rely on the Arwald/ Isomura combination to reject independent Claims 1, 19, and 28 from which Claims 4-8, 9-13, 21, and

30. Without acquiescing to any particular rejections to these dependent claims, including any assertions concerning inherency or the taking of Official Notice, it is believed that these rejections are now moot in view of the remarks made in connection with independent Claims 1, 19, and 28. None of McConnell, Monroe, or Keenan were relied upon to cure the deficiencies of the Arwald/ Isomura combination as applied to Claims 1, 19 and 28, nor do these additional references provide such a cure. Accordingly, Claims 4-13, 21, and 30 are also in condition for allowance.

3. Conclusion

Applicants note newly added dependent Claims 35-39. These new claims are fully supported in the Specification as filed (e.g., p. 10, line 29 to p. 11, line 6) and no new matter has been added. Claims 35-39 are allowable over the cited combinations of references at least because of their respective dependence from Claims 1, 17, 19, and 28. Entry and allowance of Claims 35-39 is therefore respectfully requested.

Authorization is given to charge Deposit Account No. 50-3581 (NOKM.094PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the Examiner is invited to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,
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